Midmark Dental Light Troubleshooting Chart

Problem	Symptom	Probable Cause	Check	Solution
Light will not illuminate.	Light does not illuminate - indicator lamp ON.	Light is in AUTO-ON mode, and flex arm is positioned above horizontal.	Check position of flex arm.	Reposition flex arm. Inform user of proper operation.
		Damaged / disconnected wiring.	Check wiring from flex arm PC board to bulb socket in lighthead.	Repair / replace wiring.
		Faulty bulb.	-	*Replace bulb.*
	[Console / LR mounted lights only] Light does not illuminate - indicator lamp OFF.	No air supplied to pressure switch in power supply unit.	Turn Master ON / OFF Switch ON. *(Switch located on delivery unit)*	Refer to delivery system troubleshooting if necessary.
		Facility circuit breaker.	-	Reset circuit breaker.
		No power to power supply unit.	-	Connect power to power supply unit.
		Power supply unit fuse(s) blown.	Check fuses.	*Replace fuses.*
		Pressure switch malfunctioning. *(Pressure switch located in power supply unit).*	Perform continuity test on pressure switch. *(With Master ON / OFF switch ON, there should be continuity between N.O. and COM terminals of pressure switch.)*	*Replace pressure switch.*
		Transformer *(in power supply unit)* malfunctioning.	Unplug light from power supply. Turn Master switch ON. Check voltage acrosss secondary output leads of transformer *(should be: 19.4 ±2 VAC)*	*Replace transformer if necessary.*
		Flex arm PC board is malfunctioning.	Check for proper output voltages.	*Replace flex arm PC board.*
		Damaged / disconnected wiring.	Check red and black wires from: transformer / flex arm PC board / lighthead.	Repair / replace wiring.
		Light touchpad is malfunctioning.	Check continuity between terminals 1 and 6 of light touchpad while pressing power button on touchpad.	*If no continuity, replace touchpad.*
		Faulty connection to bulb socket.	Clean bulb socket / secure connections.	*Replace bulb socket if neccessary.*
	[Ceiling / Track / Wall / Cabinet / Universal lights only] Light does not illuminate - indicator lamp OFF.	Facility circuit breaker.	-	Reset circuit breaker.
		Transformer fuse blown. *(Fuse typically located inside cover on light mounting plate)*	Check fuse.	Replace fuses.
		Transformer malfunctioning. *(Transformer typically located inside cover on light mounting plate)*	Unplug light from power supply. Check voltage acrosss secondary output leads of transformer *(should be: 19.4 ±2 VAC)*	*Replace transformer if necessary.*
		Flex arm PC board is malfunctioning.	Check for proper output voltages.	*Replace flex arm PC board.*
		Damaged / disconnected wiring.	Check red and black wires from: transformer / flex arm PC board / lighthead.	Repair / replace wiring.
		Light touchpad is malfunctioning.	Check continuity between terminals 1 and 6 of light touchpad while pressing power button on touchpad.	*If no continuity, replace touchpad.*
		Faulty connection to bulb socket.	Clean bulb socket / secure connections.	*Replace bulb socket if neccessary.*

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Problem	Symptom	Probable Cause	Check	Solution
Light flashes intermittently.	Light flashes (or goes out) when lighthead or flex arm is moved.	Damaged / disconnected wiring.	Check red and black wires from: transformer / flex arm PC board / lighthead.	Repair / replace wiring.
Light does not operate properly.	Some functions work, some do not.	Light touchpad malfunctioning.	Check continuity of malfunctioning switch. For **POWER** switch: Check terminals 1 and 6 of light touchpad while pressing Power button on touchpad. For **COMPOSITE** switch: Check terminals 1 and 4 of light touchpad while pressing Composite button on touchpad. For **INTENSITY** switch: Check terminals 1 and 2 of light touchpad while pressing Intensity button on touchpad	*If no continuity, replace touchpad.*
		Damaged / disconnected wiring.	Check wires from: flex arm PC board / light touchpad.	Repair / replace wiring.
		Flex arm PC board is malfunctioning.	Check for proper output voltages.	*Replace flex arm PC board.*
	Auto-On function does not work.	Photo switch on flex arm PC board malfunctioning.	Select Auto-On function. Remove flex arm cover. Lower flex arm below horizontal so trigger is between two posts of photo switch (set point line). *(Light should illuminate).*	
	Light pattern is not 3” x 8” (8 x 20 cm) oval at desired depth.	Light beam out of focus.	Check light pattern at focus depth between 21” to 39” (53 to 90 cm).	*Adjust light beam focus.*
	Light illuminates, but not at proper intensity.	Bulb malfunctioning.	-	*Replace bulb.*
		Facility voltage is too low.	Facility voltage should be: 115 VAC ±11.5 V	Correct voltage problem.
		Flex arm PC board is malfunctioning.	Check for proper output voltages.	*Replace flex arm PC board.*
		Transformer malfunctioning.	Unplug light from power supply. Check voltage acrosss secondary output leads of transformer *(should be: 19.4 ±2 VAC)*	*Replace transformer if necessary.*
		Shield assembly is clouded. *(This can be be caused by cleaning solution)*	Inspect shield.	Clean shield. Replace if necessary.
	Light touchpad buttons work, but indicator lamp(s) do not illuminate.	LEDs on touchpad burnt out.	-	*Replace light touch pad.*
	[Console / LR mounted lights only] Light stays ON when Master switch is turned OFF.	Pressure switch malfunctioning. *(Pressure switch located in power supply unit).*	Perform continuity test on pressure switch. *(With Master ON / OFF switch OFF, there should not be continuity between N.O. and COM terminals of pressure switch.)*	*Replace pressure switch.*

Midmark Dental Light Troubleshooting Chart				
Problem	***Symptom***	***Probable Cause***	***Check***	***Solution***
Auto-On mode is out of adjustment.	Light will not turn ON / OFF in Auto-On mode.	Auto-On mode is out of adjustment.	Select Auto-On function. Remove flex arm cover. Lower flex arm below horizontal so trigger is between two posts of photo switch (set point line). *(Light should illuminate).*	*Adjust trigger to cross set point line earlier / later as necessary.*
Lighthead / arm(s) do not rotate freely or drift when released.	Lighthead does not rotate freely or drifts when released.	Pivot joints out of adjustmennt.	-	*Adjust pivot joint tension.*
	Flex arm drifts down on its own, or requires excessive force to lower.	Flex arm spring tension out of adjustment.	-	*Adjust flex arm spring tension.*
	One pivot joint will not rotate, or requires excessive force to move.	Bearing in joint is dirty or damaged.	Remove & clean bearing.	Replace bearing if necessary.
	Lighthead / arm(s) drift to one side.	Light arm is not leveled properly.	Place a level on vertical arm of light.	*Adjust light until level.*
	Flex arm rotates farther than it should.	Stop pin is missing.	Check for missing stop pin.	Install stop pin.
	Flex arm will not rotate thru its full range of motion.	Stop washer installed incorrectly.	Check orientation of stop washer.	Reposition stop washer.

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